

Pattern Puzzles – Pack 18

Puzzle 1. What comes next in the sequence?

3	4	6	16	29	54	102	188	?
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A) 350	B) 416	C) 344	D) 347
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Puzzle 2. What comes next in the sequence?

8	8	9	4	13	13	11	8	18	18	13	12	?
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A) 27	B) 24	C) 25	D) 23
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Puzzle 3. What comes next in the sequence?

2	14	10	2	6	16	14	9	10	18	18	16	?
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A) 20	B) 15	C) 14	D) 12
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Puzzle 4. What comes next in the sequence?

12	53	174	447	968	1857	3258	5339	?
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A) 5339	B) 8268	C) 8316	D) 8292
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Puzzle 5. What comes next in the sequence?

6	5	6	18	30	55	104	190	?
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A) 349	B) 351	C) 350	D) 291
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Puzzle 6. What comes next in the sequence?

11	3	8	6	17	7	10	8	23	11	12	10	?
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- A) 29 B) 30 C) 27 D) 15

Puzzle 7. What comes next in the sequence?

8	46	170	458	1012	1958	3446	5650	?
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- A) 8792 B) 8744 C) 8768 D) 5650

Puzzle 8. What comes next in the sequence?

7	2	14	12	11	6	19	16	15	10	24	20	?
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- A) 19 B) 20 C) 22 D) 14

Puzzle 9. What number replaces the question mark in the grid?

4	2	10
12	24	1
12	10	?

- A) 25 B) 37 C) 35 D) 34

Puzzle 10. What comes next in the sequence?

5	28	113	326	757	1520	2753	4618	?
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- A) 7325 B) 7277 C) 4618 D) 7301

Answer Key

1. **D) 347**

Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+3$.

2. **D) 23**

Four interleaved arithmetic series (period 4):

3. **C) 14**

Four interleaved arithmetic series (period 4):

4. **D) 8292**

4th differences are all 24 (quartic sequence).

5. **C) 350**

Rule: $a(n) = a(n-1)+a(n-2)+a(n-3)+1$.

6. **A) 29**

Four interleaved arithmetic series (period 4):

7. **C) 8768**

4th differences are all 24 (quartic sequence).

8. **A) 19**

Four interleaved arithmetic series (period 4):

9. **D) 34**

Column sums are triangular numbers: 28, 36, 45.

10. **D) 7301**

4th differences are all 24 (quartic sequence).